



RPI Hackers Meet LBRY (Notes and Slides from RCOS Presentation)

Jeremy Kauffman • Nov 17 2015

Last Friday, we had the pleasure of presenting LBRY to RCOS (<http://rcos.rpi.edu>), the Rensselaer Center for Open Source Software. Jimmy was a member of this group when he attended RPI, and I certainly would have if I have known it had existed! In the years since I attended RPI it's grown from a handful of students to this:

Our Slides

We gave a short overview of LBRY aimed at an audience that would already know BitTorrent, Bitcoin, and programming. On the slide that shows how LBRY works from a user's perspective, we gave a live streaming demo.



Decentralized Content Marketplace

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Reaction

The RCOS attendees expressed a lot of interest in LBRY and asked some great questions like:

- How is this different from Sia Coin? (Sia makes promises we do not, and our naming/design is focused on discovery. We have a clearer path to traction by extending BitTorrent.)
- What can you do to keep content infringing on copyright off the network? (We cannot remove it, but we cannot emphasize enough that this is a terrible idea and that you are liable if you do this. We are allocating a lot of resources to getting right's holders on board.)
- Can you be sure LBRY's naming system will result in right's holders

What Is LBRY?

- A completely decentralized content marketplace
- No single points of failure for data or metadata
- Metadata in blockchain, data located via BitTorrent-like DHT (Kademlia)
- Blockchain used for metadata as well as token payments
- Complete peer-to-peer market for creators, data, and metadata
- All code open-source (even website :) - no copyrights or patents

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Google Slides

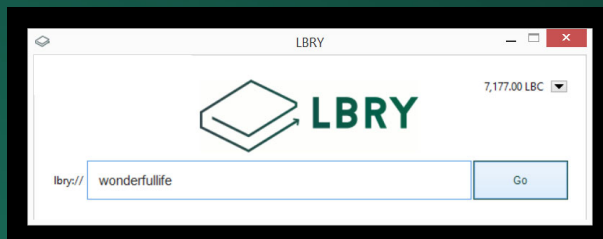
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How LBRY Works (Users)

Type in a box and get what you want.



Proof-of-concept screenshot. Clicking "Go" will allow the user to begin streaming It's A Wonderful Life from LBRY's decentralized network in about 5 seconds.

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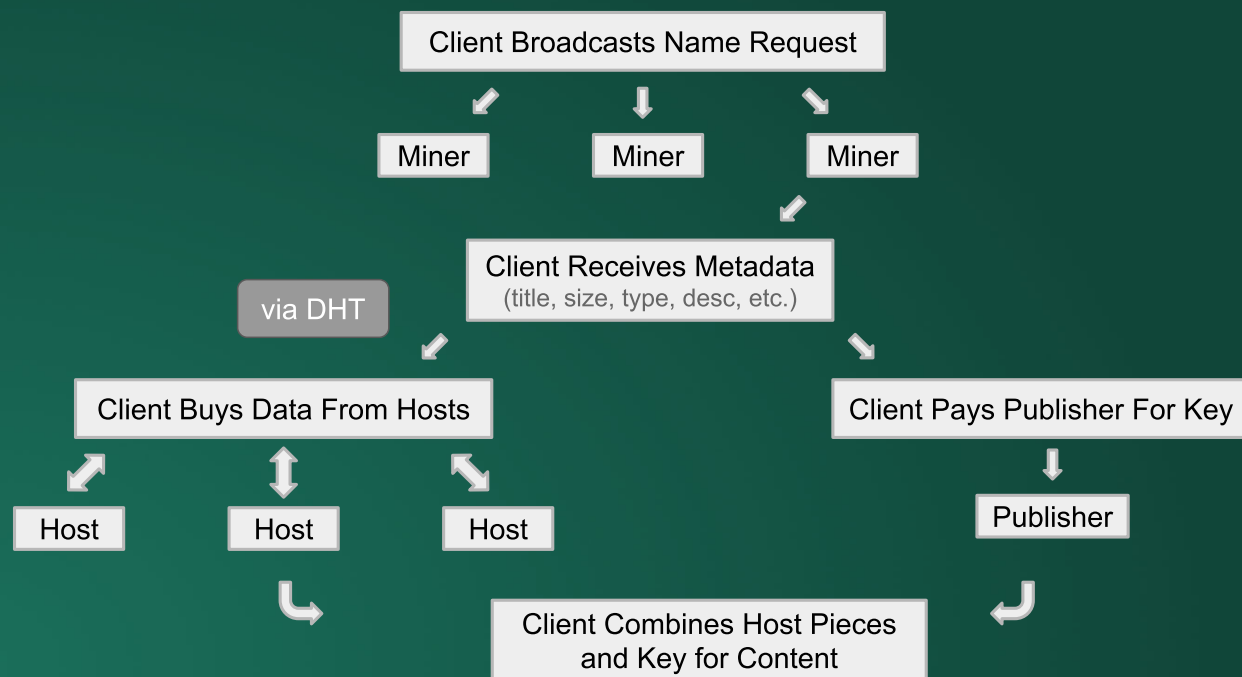
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How LBRY Works (For Real)



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Key Innovations

- Blockchain allows storage of metadata without centralization.
- Unique name system, inspired by Nobel-prize Coase theorem, makes content radically easy to find.
- Improved privacy over BitTorrent. Hosts may not know what data they have.
- Monetize lay resources of bandwidth and disk space.
- Protocol, not proprietary. Designed to be extended.

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Business Model

- LBRY protocol functions through transactions of LBRY credits.
- 1 billion credits will eventually exist over 20 years.
- We keep 75 million for LBRY, Inc.
- 275 million in reserve funds for early adopters, content creators, Bitcoin holders, and causes.

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Where Are We

- Working alpha running a testnet (available at lbry.io/get)
- All code open source (github.com/lbryio)
- Team of 4 (3 programmers)
- Advised By Stephan Kinsella (IP Attorney, Mises Scholar)

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Get Involved

- Easy: follow on Twitter ([lbryio](https://twitter.com/lbryio)), like on Facebook ([lbryio](https://facebook.com/lbryio)), join email list (lbry.io/get)
- Medium: run testnet code at lbry.io/get (and get 1,000 LBC)
- Hard: checkout the code and dig in
- Easy (for RPI): make pull request

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owning names! (You can never be certain of anything, but we think economic theory sure makes it likely.)

- How does LBRY extending BitTorrent work? (Metadata stored in LBRY blockchain maps to a torrent hash.)
- I've literally never been as excited about anything as this in my entire life. (Thanks, Jimmy's brother.)

We were also able to listen to a number of presentations by students, with the most interesting being Pandamonium (<https://github.com/mwdewey/pandamonium>), a "network emulator for testing chaotic environments". In our estimation, one could certainly test chaos with this device indeed.

Additional thanks to Mukkai Krishnamoorthy (<http://www.cs.rpi.edu/~moorthy>) who hosted us.

← Digging Into LBRY: Our Inspiration & The Future of Content

It's Time To Liberate Anne Frank's Diary →





Jeremy Kauffman · ✉ · GitHub · 🐦

Jeremy knows how to build and scale a startup starting from day one. He knows how to deliver usable products and get those products in front of the right people.

Jeremy created LBRY because he fell in love with the idea of shared, global content registry that is owned and controlled by no one. Unsurprisingly, he is a longtime supporter of decentralized technology and freedom of information.

Prior to LBRY, Jeremy founded TopScore ([//usetopscore.com](http://usetopscore.com)), a startup that processes millions of dollars monthly in event and activity registrations. He attended Rensselaer Polytechnic Institute ([//rpi.edu](http://rpi.edu)), where he received degrees in physics and computer science.

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